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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/930,159	08/16/2001	Hitoshi Iwasaka	1609.1001	1497

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EXAMINER

RINEHART, KENNETH

ART UNIT	PAPER NUMBER
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3749

DATE MAILED: 03/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/930,159

Applicant(s)

IWASAKA ET AL.

Examiner

Kenneth B Rinehart

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-14 and 25-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-14,25-29 and 33-35 is/are rejected.
- 7) ☒ Claim(s) 30-32,36 and 37 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1-14 have been considered but are moot in view of the new ground(s) of rejection.

Examiner's Suggestion

Claim 25 refers to oncave, the examiner suggests concave.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 3-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the phrase "hole-like" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by " like"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1, 3-5, 10-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Siniaguine et al (6099056). Siniaguine et al shows a hole like concave opening (groove 12, fig.

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2A) having a continuous walled inner peripheral surface (18, fig. 2B), an end face that opposes an object to be conveyed, the end face being formed in the concave opening (14, fig. 2b), a fluid passageway (15, fig. 2A) comprising a spout facing the inside of the concave opening (24, fig. 2A) so as to cause a swirl of fluid within the concave opening (fig. 1B), the spout is approximately tangential to the inner peripheral surface (fig. 2a, fig. 2b), a plurality of spouts face the inside of the concave opening such that the plurality of spouts together cause the swirl of fluid within the concave opening (fig. 1B), a centering guide to maintain the object to be conveyed such that the object opposes the end face (13, fig. 2b), a base with a plurality of concave openings are provided on the base (fig. 5), each concave opening having an end face formed therein (112 a-d, fig. 5) and a fluid passageway comprising a spout facing the inside thereof (124a-d), wherein the spouts of the concave openings face different directions such that fluid swirls in a clockwise direction in a first portion of the concave openings and fluid flows in a counter clockwise direction in a second portion of the concave openings (fig. 5), the base is surrounded with a peripheral edge to block a flow of fluid off the base (13, fig. 5b).

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claim 1, 3, 10, 25, 26, 33 are rejected under 35 U.S.C. 102(e) as being anticipated by Siniaguine et al (6402843). Siniaguine et al shows a hole like concave opening or a concave opening (4, Fig. 1) having a continuous walled inner peripheral surface (vertical sides of 4, fig. 1), an end face that opposes an object to be conveyed, the end face being formed in the concave opening (horizontal surface of 4, fig. 1), a fluid passageway (2, fig. 1) comprising a spout facing the inside of the concave opening (fig. 2) so as to cause a swirl of fluid within the concave opening (fig. 1, 2), the spout is approximately tangential to the inner peripheral surface (fig. 2), a base with a plurality of concave openings are provided on the base (fig. 4), each concave opening having an end face formed therein (fig. 4) and a fluid passageway comprising a spout facing the inside thereof (fig. 4, col. 8, lines 18-23), the fluid passageway ending at an opening through the inner peripheral surface (fig. 1, fig. 2), to supply fluid to the inner peripheral surface of the concave opening so as to cause a swirl of fluid within the concave opening (fig. 1, fig. 2).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Siniaguine et al (6099056). Siniaguine et al discloses a hole like concave opening (groove 12, fig. 2A) having a continuous walled inner peripheral surface (18, fig. 2B), an end face that opposes an object to be conveyed, the end face being formed in the concave opening (14, fig. 2b), a fluid passageway

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(15, fig. 2A) comprising a spout facing the inside of the concave opening (24, fig. 2A) so as to cause a swirl of fluid within the concave opening (fig. 1B), the noncontacting conveyance equipment has an outer periphery (fig. 1b), and the centering guide comprises ... centering protrusions provided around the outer periphery (13, fig. 8). Siniaguine et al discloses applicant's invention substantially as claimed with the exception of at least three. It would have been an obvious matter of design choice to modify Siniaguine et al to provide at least three, since applicant has not disclosed that the number of protrusions solves any stated problem in a new or unexpected way or is for any particular purpose which is unobvious to one of ordinary skill and it appears that the claimed feature does not distinguish the invention over similar features in the prior art, since plurality of features of Siniaguine will perform the invention as claimed by the applicant.

Claims 4, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siniaguine et al (6402843). Siniaguine et al shows a hole like concave opening or concave opening (4, Fig. 1) having a continuous walled inner peripheral surface (vertical sides of 4, fig. 1), an end face that opposes an object to be conveyed, the end face being formed in the concave opening (horizontal surface of 4, fig. 1), a fluid passageway (2, fig. 1) comprising a spout facing the inside of the concave opening (fig. 2) so as to cause a swirl of fluid within the concave opening (fig. 1, 2), the fluid passageway ending at an opening through the inner peripheral surface (fig. 1, fig. 2), to supply fluid to the inner peripheral surface of the concave opening so as to cause a swirl of fluid within the concave opening (fig. 1, fig. 2). Siniaguine et al discloses applicant's invention substantially as claimed with the exception of a plurality of spouts face the inside of the concave opening such that the plurality of spouts together cause the swirl of fluid

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within the concave opening. It would have been an obvious matter of design choice to modify Siniaguine et al to provide a plurality of spouts face the inside of the concave opening such that the plurality of spouts together cause the swirl of fluid within the concave opening, since applicant has not disclosed that the plurality of spouts solves any stated problem in a new or unexpected way or is for any particular purpose which is unobvious to one of ordinary skill and it appears that the claimed feature does not distinguish the invention over similar features in the prior art, since the spout of Siniaguine will perform the invention as claimed by the applicant. It has been held that mere duplication of the essential working parts of a device involves only routine skill in the art.

Claims 5, 6, 28, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siniaguine et al (6402843) et al in view of Olsson et al. Siniaguine et al (6402843) discloses a hole like concave opening (4, Fig. 1) having a continuous walled inner peripheral surface (vertical sides of 4, fig. 1), an end face that opposes an object to be conveyed, the end face being formed in the concave opening (horizontal surface of 4, fig. 1), a fluid passageway (2, fig. 1) comprising a spout facing the inside of the concave opening (fig. 2) so as to cause a swirl of fluid within the concave opening (fig. 1, 2), the non contacting equipment has an outer periphery (fig. 2), the fluid passageway ending at an opening through the inner peripheral surface (fig. 1, fig. 2), to supply fluid to the inner peripheral surface of the concave opening so as to cause a swirl of fluid within the concave opening (fig. 1, fig. 2). Siniaguine et al (6402843) discloses applicant's invention substantially as claimed with the exception of a centering guide to maintain the object to be conveyed such that the object opposes the end face, the centering guide comprises at least three centering protrusions provided around the outer periphery. Olsson et al teaches a centering

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guide to maintain the object to be conveyed such that the object opposes the end face (33, fig. 3), the centering guide comprises at least three centering protrusions provided around the outer periphery (fig. 3) for the purpose of preventing damage to the object as it may move laterally across the surface. It would have been obvious to one of ordinary skill in the art to modify Siniaguine et al by including a centering guide to maintain the object to be conveyed such that the object opposes the end face, the centering guide comprises at least three centering protrusions provided around the outer periphery as taught by Siniaguine et al for the purpose of preventing damage to the object being conveyed and thus reducing transportation costs.

Claims 11, 12, 34, 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siniaguine et al (6402843) in view of Siniaguine et al (6099056). Siniaguine et al shows a hole like concave opening or a concave opening (4, Fig. 1) having a continuous walled inner peripheral surface (vertical sides of 4, fig. 1), an end face that opposes an object to be conveyed, the end face being formed in the concave opening (horizontal surface of 4, fig. 1), a fluid passageway (2, fig. 1) comprising a spout facing the inside of the concave opening (fig. 2) so as to cause a swirl of fluid within the concave opening (fig. 1, 2), a base with a plurality of concave openings are provided on the base (fig. 4), each concave opening having an end face formed therein (fig. 4) and a fluid passageway comprising a spout facing the inside thereof (fig. 4, col. 8, lines 18-23), the fluid passageway ending at an opening through the inner peripheral surface (fig. 1, fig. 2), to supply fluid to the inner peripheral surface of the concave opening so as to cause a swirl of fluid within the concave opening (fig. 1, fig. 2). Siniaguine et al (6402843) discloses applicant's invention substantially as claimed with the exception of wherein the spouts of the concave openings face different directions such that fluid swirls in a clockwise direction in a first portion

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of the concave openings and fluid flows in a counter clockwise direction in a second portion of the concave openings, the base is surrounded with a peripheral edge to block a flow of fluid off the base. Siniaguine et al (6099056) teaches wherein the spouts of the concave openings face different directions such that fluid swirls in a clockwise direction in a first portion of the concave openings and fluid flows in a counter clockwise direction in a second portion of the concave openings (fig. 5), the base is surrounded with a peripheral edge to block a flow of fluid off the base (13, fig. 2b) for the purpose of allowing the rotational vortexes on the article to cancel and the article does not rotate relative to the facing surface. It would have been obvious to one of ordinary skill in the art to modify Siniaguine et al (6402843) by including wherein the spouts of the concave openings face different directions such that fluid swirls in a clockwise direction in a first portion of the concave openings and fluid flows in a counter clockwise direction in a second portion of the concave openings as taught by Siniaguine et al for the purpose of preventing rotation to preserve the orientation of the object being transported for placement. Siniaguine et al (6099056) teaches the base is surrounded with a peripheral edge to block a flow of fluid off the base (13, fig. 1B) for the purpose of retaining the object adjacent to the facing surface. It would have been obvious to one of ordinary skill in the art to modify Siniaguine et al by including the base is surrounded with a peripheral edge to block a flow of fluid off the base as taught by Siniaguine et al (6099056) for the purpose of retaining the object adjacent to the facing surface so that the object is not damaged.

Allowable Subject Matter

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Claims 7-9, 13, 14 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claims 30-32, 36-37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth B Rinehart whose telephone number is 703-308-1722. The examiner can normally be reached on 7:30-4:30 M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ira Lazarus can be reached on 703-308-1935. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9302 for regular communications and 703-308-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0861.

kbr
March 8, 2003



Ira S. Lazarus
Supervisory Patent Examiner
Group 3700